

Research Note

***Aplectana macintoshii* (Nematoda: Cosmocercidae) in
Eumeces latiscutatus (Sauria: Scincidae), from Japan**

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ABSTRACT: Examination of 5 *Eumeces latiscutatus* revealed the presence of the nematode, *Aplectana macintoshii* (prevalence 20%, intensity 3) in the large intestine. This is a new host record and extends the range of *A. macintoshii* to the Palaearctic zoogeographic region of Japan.

KEY WORDS: Nematoda, *Aplectana macintoshii*, Scincidae, *Eumeces latiscutatus*, Palaearctic.

Eumeces latiscutatus (Hallowell, 1860) is a scincid lizard that is restricted to Japan (Welch et al., 1990) where it is found on Hokkaido, Honshu, Shikoku, Kyushu, and Osumi Gunto islands (Nakamura and Ueno, 1970). The purpose of this note is to report the presence of the nematode, *Aplectana macintoshii* (Stewart, 1914) Travassos, 1931, in *E. latiscutatus*. This finding represents a new host and locality record and what we believe to be the first nematode species recovered from *E. latiscutatus*. The report of *Entomelas markovi* (Szczerbak and Sharpilo, 1969) Baker, 1980, in *E. latiscutatus* from the Kuril Islands, Russia (Baker, 1987), most likely represents a finding in a different species of *Eumeces* (see Welch et al., 1990).

Five adult *E. latiscutatus* (2 males, 3 females), mean snout–vent length (SVL) 69 ± 8 mm SD (range 52–72 mm), were collected at Mount Rokko ($34^{\circ}46'N$, $135^{\circ}16'E$, ca. 900 m elevation), Hyogo Prefecture, Honshu Island, 9 June 1992. Specimens were deposited in the herpetology collection of the Los Angeles County Museum of Natural History (LACM 140105–140109). The body cavity was opened ventrally and the esophagus, stomach, small intestine, and large intestine were slit longitudinally and examined under a dissecting microscope. The liver and body cavity were also examined for helminths. Nematodes were identified utilizing a glycerol wet mount.

One of 5 (20% prevalence) *E. latiscutatus* (LACM 140109, female, 71 mm SVL) harbored 1 male and 1 intact and 1 partial female *A. mac-*

intoshii in the large intestine. The nematodes were identified using the key to species of *Aplectana* provided by Baker (1980) and are consistent with the description of *A. macintoshii*. The male measured 2.7 mm total length, with a spicule length of 255 μ m compared to measurements of 2.0–2.6 mm total length, spicules 205–257 μ m, for male *A. macintoshii* from Baker (1980). The 1 intact female measured 4.2 mm compared to measurements of 4.2–5.1 mm for *A. macintoshii* from Baker (1980). Published measurements (Baker, 1980) are for *A. macintoshii* from *Rana tigrina* collected in India. The 3 nematodes were deposited in the U.S. National Parasite Collection (Beltsville, Maryland 20705): USNM Helm. Coll. No. 82710.

There are approximately 41 species of *Aplectana*, the majority of which parasitize frogs and toads (see Baker, 1987). *Aplectana macintoshii* is the most cosmopolitan species of the genus and occurs in South America, Europe, Africa, India, Malaysia, and China, where it is known from 37 species of frogs and toads, 2 species of lizards, and 1 species of snake (see Baker, 1987). Because *A. macintoshii* occurs primarily in amphibians, it is possible that our recovery of this nematode from *E. latiscutatus* may represent pseudoparasitism. Unfortunately, our small sample size prevents consideration of this question.

Aplectana sp. (perhaps *A. macintoshii*) was recovered in 2 *Rana ishikawai* frogs from Amami Ōshima Island, Japan (Hasegawa, 1990). Amami Ōshima Island belongs to the Oriental zoogeographic region. Our finding of *A. macintoshii* in *E. latiscutatus* extends the range of this nematode into the Palaearctic zoogeographic region of Japan.

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Research Note

Hemogregarines and *Sarcocystis* sp. (Apicomplexa) in a Western Green Rat Snake, *Senticolis triaspis intermedia* (Serpentes: Colubridae), from New Mexico

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ABSTRACT: A western green rat snake, *Senticolis triaspis intermedia* (Boettger, 1883), was collected from southwestern New Mexico and examined for endoparasites. Gamonts of 3 different hemogregarines were found in erythrocytes, and oocysts and free sporocysts of a *Sarcocystis* sp. were present in intestinal contents and feces. Measurements of small, medium, and large forms of intraerythrocytic gamonts were 12.8×3.4 ($10.4-14.4 \times 2.8-4.2$) μm ($N = 20$), 17.0×4.0 ($16.0-18.4 \times 3.2-4.8$) μm ($N = 20$), and 17.8×7.4 ($16.0-20.0 \times 6.2-8.8$) μm ($N = 20$), respectively. Sporocysts of the *Sarcocystis* sp. were 12.7×10.6 ($12.0-13.6 \times 10.0-11.2$) μm ($N = 20$) and had a shape index (length/width) of 1.20 (1.07-1.24). Although anecdotal information is available on parasites of *E. triaspis intermedia*, this is the first documentation of detailed information.

KEY WORDS: Apicomplexa, coccidia, gamonts, hemogregarines, Protozoa, *Sarcocystis* sp., *Senticolis triaspis intermedia*, western green rat snake, Colubridae, New Mexico.

The western green rat snake, *Senticolis triaspis intermedia* (Boettger, 1883), is a moderately large colubrid that ranges from southeastern Arizona,

southwestern New Mexico, and southern Tamaulipas, Mexico, southward along the western Mexican highlands to Costa Rica (Stebbins, 1985; Garrett and Painter, 1992). It inhabits wooded and rocky canyon bottoms near streams in mountainous areas. Little is known about the biology of this snake (Wright and Wright, 1957; Dowling, 1960; Dowling and Fries, 1987; Cranston, 1989, 1990), and only anecdotal data are available on its parasites (Cranston, 1990). Herein, we report detailed information on 4 species of apicomplexan parasites found in a *S. triaspis intermedia*.

On 27 April 1992, an adult male *S. triaspis intermedia* (snout-vent length = 734 mm, University of New Mexico Museum of Southwestern Biology, MSB 54161) was collected by 1 of us (C.M.G.) in Guadalupe Canyon of the Peloncillo Mountains of extreme southwestern Hidalgo County, New Mexico (31°21'N, 109°03'W). This snake represented the first voucher specimen from the state (Garrett and Painter, 1992). The spec-